

REMARKS

Applicant has reviewed the Office Action mailed on November 18, 2004 as well as the art cited. Claims 1, 9, 12-13, 19-21, 29, 32, 43, 48 and 57 have been amended. Claims 17, 22, 23, 30 and 46 have been canceled. Claims 1-16, 19-21, 24-29, 31-45 and 48-69 are pending in this application.

Amendments to the Specification

The replacement paragraphs are presented in the Amendment to correct typographical errors in the original application.

Rejections Under 35 U.S.C. § 102

Claims 1-16, 19-22, 32-36, 38-41 and 48-69 were rejected under 35 USC § 102(e) as being anticipated by Sato et al., (U.S. Patent No. 6,249,324).

Claim 1 as amended is reproduced below:

An apparatus for dynamically controlling the delivery of data over a network, the apparatus comprising:

 a network interface circuit with at least one communication port adapted to be coupled to a network by a plurality of communication links;

 an encoder, communicatively coupled to the network interface circuit, the encoder adapted to receive data from a source and to encode the data with a selectable level of compression; and

 wherein the network interface circuit includes a control mechanism that provides a signal to select the level of compression for the encoder when at least one of the plurality of communication links becomes unusable.

Sato does not teach or suggest all the elements of claim 1. For example, Sato does not teach or suggest wherein the network interface circuit includes a control mechanism that provides a signal to select the level of compression for the encoder when at least one of the plurality of communication links becomes unusable. Since Sato does not teach all the elements of claim 1, the Examiner has failed to establish a prima facie case of anticipation with respect to claim 1 and claim 1 is allowable.

Moreover, as claims 2-12 depend from and further define patentably distinct Claim 1, Applicant also respectfully requests the withdrawal of the rejection of these dependant claims.

Since the Applicant believes the Claims are allowable for the reason as stated above, further arguments may not have been put forth at this time addressing all rejections to said claims. However, the Applicant retains the right to address said rejections if further response is required.

Claim 13 as amended is reproduced below:

A method for reducing a loss in transmission quality with changing network conditions, the method comprising:
receiving data from a source;
encoding the data with a first rate;
detecting a loss of at least one of a plurality of communication links between an access device of a communication network and a network; and
adjusting the level of encoding to respond to the loss of the at least one of a plurality of communication links.

Sato does not teach or suggest all the elements of claim 13. For example, Sato does not teach or suggest adjusting the level of encoding to respond to the loss of the at least one of a plurality of communication links. Since Sato does not teach all the elements of claim 13, the Examiner has failed to establish a prima facie case of anticipation with respect to claim 13 and claim 13 is allowable.

Moreover, as claims 14-16 and 19-21 depend from and further define patentably distinct Claim 13, Applicant also respectfully requests the withdrawal of the rejection of these dependant claims. Since the Applicant believes the Claims are allowable for the reason as stated above, further arguments may not have been put forth at this time addressing all rejections to said claims. However, the Applicant retains the right to address said rejections if further response is required.

Claim 32 as amended is reproduced below:

An access device, comprising:
a network interface circuit having a plurality of network ports adapted to couple to a plurality of communication lines for an asynchronous transfer mode (ATM) network, a data port adapted to couple to at least one data source, and at least one telephony port adapted to couple to at least one telephony line;
an encoder, communicatively coupled to the network interface circuit, that is adapted to receive data from at least one audio/video source; and

a control mechanism, communicatively coupled with the network interface circuit and the encoder, the control mechanism producing at least one control signal to control the rate of the encoder based on when one of the plurality of connections to the ATM network is unusable.

Sato does not teach or suggest all the elements of claim 32. For example, Sato does not teach or suggest a control mechanism, communicatively coupled with the network interface circuit and the encoder, the control mechanism producing at least one control signal to control the rate of the encoder based on when one of the plurality of connections to the ATM network is unusable. Since Sato does not teach all the elements of claim 32, the Examiner has failed to establish a prima facie case of anticipation with respect to claim 32 and claim 32 is allowable.

Moreover, as claims 33-37 depend from and further define patentably distinct Claim 32, Applicant also respectfully requests the withdrawal of the rejection of these dependant claims. Since the Applicant believes the Claims are allowable for the reason as stated above, further arguments may not have been put forth at this time addressing all rejections to said claims. However, the Applicant retains the right to address said rejections if further response is required.

Claim 38 is reproduced below:

An access device, comprising:
an inverse multiplexer having a plurality of network ports adapted to couple to a plurality of communication lines for an asynchronous transfer mode (ATM) network;
an encoder, communicatively coupled to the inverse multiplexer, that is adapted to receive data from at least one audio/video source;
a control mechanism, communicatively coupled with the inverse multiplexer and the encoder, the control mechanism producing at least one control signal to control the rate of the encoder based on a condition of the ATM network; and
wherein the encoder, the control mechanism, and the inverse multiplexer are located in a common housing.

Sato does not teach or suggest all the elements of claim 38. For example, Sato does not teach or suggest an inverse multiplexer having a plurality of network ports adapted to couple to a plurality of communication lines for an asynchronous transfer mode (ATM) network. Since Sato

does not teach all the elements of claim 38, the Examiner has failed to establish a prima facie case of anticipation with respect to claim 38 and claim 38 is allowable.

Moreover, as claims 39-42 depend from and further define patentably distinct Claim 38, Applicant also respectfully requests the withdrawal of the rejection of these dependant claims. Since the Applicant believes the Claims are allowable for the reason as stated above, further arguments may not have been put forth at this time addressing all rejections to said claims. However, the Applicant retains the right to address said rejections if further response is required.

Claim 48 as amended is reproduced below:

A distance learning system, comprising:
a plurality of access devices coupled together over a transport network;
a plurality of data sources and sinks, each data source and each data sink coupled to one of the access devices; and
wherein each access device comprises:
a network interface circuit with at least one communication port adapted to be coupled to the transport network;
an encoder, communicatively coupled to the network interface circuit, the encoder adapted to receive data from a source and to encode the data with a selectable level of compression; and
wherein the network interface circuit includes a control mechanism that provides a signal to select the level of compression for the encoder based on a loss of at least one of a plurality of communication links between the plurality of access devices and the transport network.

Sato does not teach or suggest all the elements of claim 48. For example, Sato does not teach or suggest wherein the network interface circuit includes a control mechanism that provides a signal to select the level of compression for the encoder based on a loss of at least one of a plurality of communication links between the plurality of access devices and the transport network. Since Sato does not teach all the elements of claim 48, the Examiner has failed to establish a prima facie case of anticipation with respect to claim 48 and claim 48 is allowable.

Moreover, as claim 49 depends from and further defines patentably distinct Claim 48, Applicant also respectfully requests the withdrawal of the rejection of this dependant claim. Since the Applicant believes the Claim is allowable for the reason as stated above, further

arguments may not have been put forth at this time addressing all rejections to said claim. However, the Applicant retains the right to address said rejections if further response is required.

Claim 50 is reproduced below:

An apparatus for dynamically controlling the delivery of data over a network, the apparatus comprising:
a network interface circuit with at least one communication port adapted to be coupled to a network;
an encoder, communicatively coupled to the network interface circuit, the encoder adapted to receive data from a source and to encode the data with a selectable level of compression; and
wherein the network interface circuit includes a control mechanism that provides a signal to select the level of compression for the encoder based on one parameter;
wherein the network interface circuit comprises an inverse multiplexer (IMUX) with a plurality of network ports, each network port adapted to be coupled to a selected communication link of the network.

Sato does not teach or suggest all the elements of claim 50. For example, Sato does not teach or suggest wherein the network interface circuit comprises an inverse multiplexer (IMUX) with a plurality of network ports, each network port adapted to be coupled to a selected communication link of the network. Since Sato does not teach all the elements of claim 50, the Examiner has failed to establish a prima facie case of anticipation with respect to claim 50 and claim 50 is allowable.

Moreover, as claims 51-56 depend from and further define patentably distinct Claim 50, Applicant also respectfully requests the withdrawal of the rejection of these dependant claims. Since the Applicant believes the Claims are allowable for the reason as stated above, further arguments may not have been put forth at this time addressing all rejections to said claims. However, the Applicant retains the right to address said rejections if further response is required.

Claim 57 as amended is reproduced below:

An apparatus for dynamically controlling the delivery of data over a network, the apparatus comprising:
a network interface circuit with at least one communication port adapted to be coupled to a network;

an encoder, communicatively coupled to the network interface circuit, the encoder adapted to receive data from a source and to encode the data with a selectable level of compression; and wherein the network interface circuit includes a control mechanism that provides a signal to select the level of compression for the encoder based on when at least one of a plurality of connections between the network interface circuit and the network becomes unusable.

Sato does not teach or suggest all the elements of claim 57. For example, Sato does not teach or suggest wherein the network interface circuit includes a control mechanism that provides a signal to select the level of compression for the encoder based on when at least one of a plurality of connections between the network interface circuit and the network becomes unusable. Since Sato does not teach all the elements of claim 57, the Examiner has failed to establish a prima facie case of anticipation with respect to claim 57 and claim 57 is allowable.

Moreover, as claims 58-69 depend from and further define patentably distinct Claim 57, Applicant also respectfully requests the withdrawal of the rejection of these dependant claims. Since the Applicant believes the Claims are allowable for the reason as stated above, further arguments may not have been put forth at this time addressing all rejections to said claims. However, the Applicant retains the right to address said rejections if further response is required.

Claims 29, 31 and 43-46 were rejected under 35 USC § 102(b) as being anticipated by Chaddha et al. (U.S. Patent No. 5,621,660).

Claim 29 as amended is reproduced below:

A method for controlling delivery of video over an asynchronous transfer mode (ATM) network, the method comprising:
monitoring a plurality of connections to the ATM network used to transmit video data from at least one source;
when synchronizing the plurality of connections to the ATM network:
calculating an available bandwidth for delivering the video data;
establishing a data rate for a video encoder used to deliver the video data based on the available bandwidth; and
wherein when at least one of the plurality of connections becomes unusable:

calculating an available bandwidth for delivering the video data;
and
establishing a second, different data rate for a video encoder used
to deliver the video data based on the currently available
bandwidth.

Chaddha does not teach or suggest all the elements of claim 29. For example, Chaddha does not teach or suggest wherein when at least one of the plurality of connections becomes unusable: calculating an available bandwidth for delivering the video data; and establishing a second, different data rate for a video encoder used to deliver the video data based on the currently available bandwidth. Since Chaddha does not teach all the elements of claim 29, the Examiner has failed to establish a prima facie case of anticipation with respect to claim 29 and claim 29 is allowable.

Moreover, as claim 31 depends from and further defines patentably distinct Claim 29, Applicant also respectfully requests the withdrawal of the rejection of this dependant claim. Since the Applicant believes the Claim is allowable for the reason as stated above, further arguments may not have been put forth at this time addressing all rejections to said claim. However, the Applicant retains the right to address said rejections if further response is required.

Claim 43 as amended is reproduced below:

A method for reducing loss of transmission quality with changing
network conditions, the method comprising:
receiving data from a source;
encoding the data with a first rate;
monitoring a plurality of connections to a network;
wherein when at least one of the plurality of connections
becomes unusable, adjusting the level of encoding to respond to
the changed condition.

Chaddha does not teach or suggest all the elements of claim 43. For example, Chaddha does not teach or suggest wherein when at least one of the plurality of connections becomes unusable, adjusting the level of encoding to respond to the changed condition. Since Chaddha does not teach all the elements of claim 43, the Examiner has failed to establish a prima facie case of anticipation with respect to claim 43 and claim 43 is allowable.

Moreover, as claims 44 and 45 depend from and further define patentably distinct Claim 43, Applicant also respectfully requests the withdrawal of the rejection of these dependant claims. Since the Applicant believes the Claims are allowable for the reason as stated above, further arguments may not have been put forth at this time addressing all rejections to said claims. However, the Applicant retains the right to address said rejections if further response is required.

Allowable Subject Matter

Applicant thanks the Examiner for the indication that claims 24-28 are allowed over the prior art. Further, Applicant thanks the Examiner for the indication that claims 17, 23, 30, 37 and 42 are allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 17, 23 and 30 are canceled and incorporated into their respective independent claims. Applicant has not amended claims 37 and 42 as Applicant believes that the independent claims from which they respectively depend are allowable for the reasons provided above.

Serial No.: 09/598,642

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Title: REDUCING LOSS IN TRANSMISSION QUALITY UNDER CHANGING NETWORK CONDITIONS

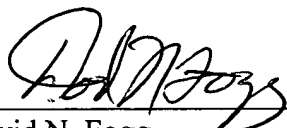
CONCLUSION

Applicant respectfully submits that claims 1-16, 19-21, 24-29, 31-45 and 48-69 are in condition for allowance and notification to that effect is earnestly requested. If necessary, please charge any additional fees or credit overpayments to Deposit Account No. 502432.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at 612-455-1680.

Respectfully submitted,

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